

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT (PCT Article 36 and Rule 70)

REC'D 29 MAR 2004

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| Applicant's or agent's file reference 02R00309/PC | FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416) | |
| International application No. PCT/JP 03/07834 | International filing date (<i>day/month/year</i>) 19.06.2003 | Priority date (<i>day/month/year</i>) 28.06.2002 |
| International Patent Classification (IPC) or both national classification and IPC G02B27/22 | | |
| Applicant SHARP KABUSHIKI KAISHA et al. | | |

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 4 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

 These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:
 - I ☒ Basis of the opinion
 - II ☐ Priority
 - III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 - IV ☐ Lack of unity of invention
 - V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - VI ☐ Certain documents cited
 - VII ☐ Certain defects in the international application
 - VIII ☐ Certain observations on the international application

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| Date of submission of the demand 03.12.2003 | Date of completion of this report 26.03.2004 |
| Name and mailing address of the International preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465 | Authorized Officer Berg, S Telephone No. +49 89 2399-2699  |

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. **PCT/JP 03/07834**

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-40 as originally filed

Claims, Numbers

1-43 as originally filed

Drawings, Sheets

1/26-26/26 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. **PCT/JP 03/07834**

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

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|-------------------------------|-------------|------|
| Novelty (N) | Yes: Claims | 1-43 |
| | No: Claims | |
| Inventive step (IS) | Yes: Claims | 1-43 |
| | No: Claims | |
| Industrial applicability (IA) | Yes: Claims | 1-43 |
| | No: Claims | |

2. Citations and explanations

see separate sheet

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/JP03/07834

Documents cited in the search report

D1: EP-A-0 919 847 (SHARP KK) 2 June 1999 (1999-06-02)

D2: GB-A-2 317 295 (SHARP KK) 18 March 1998 (1998-03-18)

D3: US-A-6 046 787 (NISHIGUCHI KENJI) 4 April 2000 (2000-04-04)

D4: EP-A-0 887 666 (SHARP KK) 30 December 1998 (1998-12-30)

Re Item V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. The application concerns an optical device with an input polariser (which has a first polarising direction) and an output polariser. A polarisation modifying element has at least two sets of regions. The light from the regions have a second or a third polarising direction.

Such a device is known from D1: EP-A-0 919 847.

The objective problem concerns the intensity variation for light in the second and third polarised directions, which creates a variation in brightness over a display.

2. The solution involves a setting where the each light path through the input polariser, **first** region and output polariser has the same attenuation and phase change as for the light path through the input polariser, second region and output polariser.

The prior art has not acknowledged the problem and does not provide features that may be used to solve it. Thus, the claimed solution appears inventive, within the meaning of Article 33(3)PCT.

3. The dependent claims concern the same subject-matter and are inventive as well.-